

## **Special Project Abstracts**

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## **Special Project Abstracts**

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## **The EMS Authority's Special Grant Program**

The Health and Safety Code (Sec. 1797.200) permits a county to develop an EMS program. Each county developing an EMS program must designate a local EMS agency, which may be the county health department, an agency established and operated by the county, an entity with which the county contracts for the purposes of EMS administration, or a joint powers agency. Funding of local EMS agencies is generally the responsibility of the county establishing the EMS program. In California, the development of EMS systems has been varied as a result of the state's large size, geographical features, diverse population distribution, and differing availability at the local level of adequate finances and other resources. In an effort to promote the development and maintenance of EMS systems, some state and federal funding is available to assist local EMS agencies in maintaining, developing, improving, and evaluating local services.

The EMS Authority administers two local assistance funding programs. They are (1) the State General Fund and, (2) the Federal Preventive Health and Health Services (in California called Prevention 2010) Block Grant.

Prevention 2010 Block Grant funds (approximately \$1.2 million) are allocated to local EMS agencies annually for special projects to develop, implement, and improve local and state EMS capabilities.

### **Special Project Grant Selection Process**

The EMS Authority utilizes a competitive grant selection process. Proposals are sorted and reviewed by target areas to allow for an organized and equitable review process.

A review committee consisting of 8-10 reviewers drawn from the EMS community convenes in Sacramento. The committee consists of EMS administrators, medical directors, and subject experts as determined by the EMS Authority. Individuals do not serve on the committee if their local EMS agency has submitted an application for funding. There is one primary reviewer, one secondary reviewer and a recorder for each grant application. They review in depth and present the project to the whole committee. All reviewers receive copies of all of the proposals being reviewed by the committee.

The reviewers make ranked recommendations for funding of projects and provide written comments on each proposal to the EMS Authority.

The EMS Authority makes the final selection of projects to be funded. Funds are allocated according to the ranking of the proposals. Amounts allocated are related to the appropriateness of the budget, the potential benefit, and the availability of funds.

The EMS Authority provides a summary of the review committee's comments (positive and negative) for each proposal to help applicants improve future proposals for funding.

With respect to Special Project Grants, it is EMSA's goal to continue the funding stream to local EMS agencies. The specific use of these funds are to assist local EMS agencies to improve underdeveloped EMS system components.

It is also our goal to improve the transferability of projects, by examining the statewide application of proposed projects. We wish to reduce the reliance upon special projects to augment local EMS agency budgets.

The EMS Authority distributes the abstracts of projects annually and will continue a participatory review of grant submissions to meet these goals.

# **SPECIAL PROJECT ABSTRACTS**

**2001/02 SFY GRANTS**



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## Senior Injury Prevention Project (PIPP)

**Grantee:**

Alameda County EMS Agency

**Project Number:** EMS-1049

**Project Period:** 07/01/01-06/30/02

**Project Amount:** \$100,000.00

**EMS Administrator:**

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### Introduction

While the percentage of senior citizens is growing at a faster rate than other segments of the population, the number of injury prevention programs and resources available to support them has not kept pace. Most of the existing injury prevention programs nationally and in Alameda County are focused on childhood injuries. The few senior injury prevention programs that currently exist operate on a local level (senior centers, individual hospitals) which has led to program fragmentation. At the start of this project little headway had been made in identifying existing programs, advertising them to the community or linking services. Many program managers had little or no information about other programs.

In 1997 (the last year for which complete data were available at the beginning of this project; data utilized from the State Department of Health Services) the total medical cost of unintentional injury in Alameda County was \$224,088,850 and \$106,141,405 (47%) was spent on medical costs associated with senior injury alone. This figure was more than the double the cost of injuries to residents ages 21-44 or 45-64, and almost six times the cost of injuries to children and youth, where most injury prevention resources are applied. Of the \$106,141,405 spent on senior injuries, more than 71% (\$75,754,773) was related to falls, which is

the basis for our initial emphasis. Clearly, a countywide Senior Injury Prevention Program was needed to address issues that lead to injury and add to the overall cost of health care.

### Project Description

The goal of SIPP is to reduce the number of preventable injuries to the senior population of Alameda County and to raise awareness regarding the need for countywide and statewide senior injury prevention services.

SIPP's major objectives at the outset of this grant were to: 1) Establish within the Alameda County Public Health Department EMS Agency an organizational and administrative structure for the continued planning, development, implementation, and evaluation of a comprehensive Senior Injury Prevention Program, 2) Establish and maintain a process for collection and analysis of data to support intervention strategies and to gauge project impact, 3) Strengthen existing senior injury prevention efforts through collaboration with public and private organizations, 4) Develop and implement multi-faceted interventions to reduce the number of senior falls, 5) Increase community awareness of senior injury as a public policy issue.

## Tasks/Methodology

The project was organized in three phases.

Phase I concerned research, organizing, and data analysis. During Phase I the three original partners, being EMS, United Seniors of Oakland and Alameda County (USOAC) represented by Supervisor Miley and the Area Agency on Aging (Alameda County Social Services Department) made contact with numerous organizations and conducted several meetings to discuss proposed activities and potential collaboration. Available data was presented and was the basis for the determination to initially focus on falls prevention. The existing data showed that most falls happened in and around the home but did not elucidate on what caused the falls. Additional data was collected during 14 focus groups with older adults to clarify the factors that contribute to falls. The focus groups were so well received by the older adult population that SIPP decided that with minor changes this type of informational exchange presented an opportunity for falls prevention intervention. We now hold Falls Prevention Discussion Groups throughout the county. We continue to collect data at each session.

Phase II involved disseminating information, identifying organizational and funding resources, and creating a network of stakeholders. SIPP has held two annual conferences, made presentations to funding organizations, senior service providers, and local advocacy groups. SIPP has created partnerships with hospitals, community groups, Fire Departments, Social Services, private businesses, coalitions, and county agencies. The SIPP membership has continued to expand in Alameda County and is providing information and

assistance to Contra Costa County and Marin County in developing their older adult injury prevention programs.

Phase III began the implementation of the SIPP interventions, which involved a multi-faceted approach including a comprehensive education strategy focused on environmental, behavioral, physical fitness, nutrition and medication management information. SIPP has conducted a total of 15 discussion groups with older adults in addition to making contact with fitness centers within the five focus cities/jurisdictions to encourage the creation or expansion of older adults fitness programs. SIPP has worked with two local Fire Departments and case management agencies to link services and create Fall Referral Programs.

## Outcome

SIPP has produced a SIPP brochure that is distributed at hospitals, senior centers, discussion groups, and at any meetings involving senior service providers. The brochure describes the project and gives contact information to host discussion groups. SIPP developed evaluation forms that are filled out by Falls Prevention Discussion Group attendees. SIPP created a Senior Injury Prevention Resource Directory that lists all agencies, businesses etc. that have programs involving older adult fitness, nutrition information, medication management, balance testing, or home safety checks. The directory is broken down by city and type of service. SIPP has produced a Best Practices Model for the fitness community that describes the types of fitness programs that are appropriate for older adults and some suggestions on how to market to the older adult population. SIPP created a database to track the data collected at the Falls Prevention Discussion Groups. The database

can produce a table that shows the numbers of attendees at each discussion group, a count of answers to each question and totals. SIPP created a Falls Prevention Manual that is distributed at the Falls Prevention Discussions. The Manual has four chapters entitled, “Changing Behaviors”, “Nutrition and Medication Management”, “Fitness”, and “Home Safety Checklist”. SIPP also put together a packet of information for conference attendees. All of these items are included with the Final Report.

## **Conclusion**

At this point there has been no impact on the overall operation of the EMS system. Injury prevention activities provide a forum to educate people about EMS and allow EMS to develop a higher profile with the general public. As EMS becomes more involved in injury prevention additional staffing will be needed. EMS currently has established working relationships with many of the agencies that are integral parts of developing and implementing interventions and is in an ideal position to take a lead role in injury prevention.

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## Emergency Medical Services for Children (EMSC)

**Grantee:**

Coastal Valleys EMS Agency

**Project Number:** EMS-1050

**Project Period:** 10/01/01 - 03/31/03

**Project Amount:** \$75,000.00

**EMS Administrator:**

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### Introduction

In 1997 the Sonoma EMS Agency was approached by an emergency department physician regarding EMS for Children. He had recently come from the Los Angeles area and was familiar with the EMS-C program that had been instituted in Los Angeles County during the early 1990's. He urged the Agency to apply for an EMSC grant for the purposes of instituting an EMSC program in Sonoma County. The agency did apply for an EMSC grant but the request was rejected for a number of reasons. The primary reason was the agency's lack of an updated, current EMS Plan. Secondly, the agency was in the process of expanding its sphere of influence by partnering up with Mendocino and Napa counties to form the Coastal Valleys EMS Regional Agency. Once the merge was complete and the "new" agency submitted its updated EMS Plan, a grant proposal for instituting an EMSC component and program into the new region was submitted to the EMS Authority during FY 99-00.

### Project Description

The project set out to accomplish a "snapshot" of the current state of the various EMSC components existing within the overall EMS system. The project management team felt, but did not know for a fact, that the Agency's pediatric field protocols met the EMSC program

recommendations. The Agency also wanted to verify what pediatric equipment field providers possessed, what training needs, if any, existed for field providers and lastly, what EMSC program standards the region's hospitals did or did not meet. The project's major objectives were:

- Develop a project implementation plan.
- Develop an administrative support structure for the EMSC program.
- Assess current prehospital standards as related to equipment, education, training and treatment protocols.
- Develop an action plan related to securing identified needed prehospital equipment
- Develop an active education alliance with the local junior college districts to provide pediatric education for field providers.
- Develop Emergency Department Standards, Pediatric Critical Care, Burns, Speciality Center and Transport guidelines.
- Conduct hospital site visits to determine the degree to which the EMSC standards are currently being met and to establish contact links throughout the region for referral and transfer as well as provide pediatric consultation to hospital staff as needed.

## Tasks/Methodology

A project team was formed and an EMSC Advisory Committee was recruited from various stakeholder groups. The Advisory group met on a monthly basis and assisted the project team by prioritizing the various “work components” team members had identified while developing the project implementation plan. Team members split up various responsibilities related to the various EMSC program components and began working.

As an example, one team member compared and contrasted all of the various field treatment protocols and procedures with the EMSC recommendations. Another team member compared and contrasted recommended pediatric equipment guidelines with the currently existing equipment stock. A survey tool was developed and sent to every EMS field provider and first responder agency within the region to both verify and identify what existed and what needed to be added (and at what cost). Another team member developed an education and training needs assessment survey tool and sent it out to the region’s paramedics and ED staff. The Advisory Committee steered the development of the ED Standards and Guidelines templates which were distributed to the various hospitals prior to the beginning of site visits.

An e-mail list server and eventually an EMSC link on the Agency’s web site was established. Pediatric equipment was procured with grant money and distributed to EMS transport providers. BLS pediatric equipment was purchased and distributed to fire departments. Pediatric training equipment was purchased and an equipment library established in conjunction with the presentation of Pediatric Education for Prehospital Professionals (PEPP).

Twenty PEPP course presentations were funded and underwritten with grant funding through a partnership with the local junior college. Five Emergency Nursing Pediatric Courses (ENPC) were funded through a partnership with a local hospital. An Emergency Department Transport Guidelines matrix was developed and distributed to the region’s 13 hospitals.

## Outcome

- The project produced updated and current pediatric field treatment procedures and protocols, including new policies covering *Sudden Unexpected Death and Apparent Life Threatening Event*.
- The project produced updated and current equipment lists in both the prehospital and hospital settings.
- The project established permanent presentations of PEPP at the local public safety training center.
- The project established an EMSC Advisory Committee
- The project established an EMSC link on the Agency’s web site.
- The project established EMSC Emergency Department Guidelines and a Pediatric Care, Burns, Specialty Center and Transport Guidelines Matrix.
- The project purchased and distributed field equipment to the region’s EMS transport providers and first responder agencies.
- The project established a pediatric training equipment lending library.
- The project established a permanent email list server for the EMSC liaisons in the region’s hospitals and field agency representatives.

The various project outcomes have helped to institutionalize the EMSC program within the overall efforts of the EMS Agency to meet its obligations contained within the region's EMS plan. The project has raised the overall awareness of the region's stakeholders of their pediatric patients' needs, which has resulted in a better-trained and equipped work force.

## Conclusion

The net impact of the project has been very positive overall. EMS transport providers (and their field personnel) have state of the art transport equipment (current EMSC equipment standards are being met and include pediatric immobilization boards and 5- point gurney harnesses) as well as current pediatric procedures, protocols and policies for field care. PEPP courses have been institutionalized at the local training center. ENPC courses (5) are addressing ED staff training needs. An on-going EMSC link has been established on the Agency's web site, which the Agency was told during the recent EMSC program audit, is an excellent template for other Agencies to emulate.

As far as recommendations regarding the process and project, the Agency believes that

- The EMSC program Implementation Guide (developed by Sierra-Sacramento EMS Regional Agency) is an excellent platform to use when designing an EMSC system.
- We highly recommend the use of an EMSC Advisory Committee to act as a steering group and resource for development of both field and hospital standards.
- We highly recommend the use of email list servers and web site linkages for an

entity contemplating the "best" practice of disseminating and informing constituents of the EMSC project's progress.

- We recommend using a "town hall" meeting approach to kick off the start of an EMSC project.
- We highly recommend "mandatory" participation of EMSC grant project recipients in the EMSC Coordinator's Group that is facilitated by the EMS Authority.
- We highly recommend a "mandatory" review of the most recent EMSC projects by an Agency that is contemplating establishing an EMSC program. This would allow a "new" EMSC project to utilize survey tools, budget comparisons, and contracts etc. that were successfully employed by preceding projects.
- We highly recommend developing partnerships with local junior college districts to establish on-going presentations of both PALS and PEPP courses.
- We do not recommend the use of consultants to assist with project implementation or project management, with the exception of using a subject matter expert for conducting hospital site visits and consultations (usually during the second year of the project).
- We recommend a review of the EMSC standards (by the State's EMSC TAC) for purposes of reconciling the differences between the EMSC standards for hospitals versus the recommendations published by American College of Emergency Physicians (ACEP). The ACEP standards seems to

- have a wider following and acceptance by ED staff.
- We recommend spending as much grant funding as possible on equipment for field providers and first responder agencies. Having the lure of equipment funding helps in assessing current equipment status and addressing the needs among field providers.
  - We recommend establishing a pediatric training equipment “lending library” so that the providers and training entities have current, state of the art equipment to utilize long after grant funding has been discontinued.
  - It would be prudent to also set aside some grant funding to underwrite the cost of providing training for ED staff as well, especially if responders to training surveys identify a need. We found this “carrot & stick” approach very effective in eliciting replies from the various survey target groups.
  - Our personal experience with the issues of hospital “designation”, i.e. “EDAP”, versus consultative site visits was this: hospital cooperation is more likely when the project’s goal is to raise all facilities’ capability to the highest, sustainable level. Given the diverse geography of our region, we recognized that self-presenting patients (and parents) are going to “their” closest hospital, regardless of signage and Agency designation.
  - We recommend eliminating an “EMSC Plan” as a first year project product. Project needs should be filled as they are identified.
  - We recommend enlisting the Aid of the EMS Authority’s EMSC Coordinator and Contract Manager whenever

possible, but especially when modifying project goals and objectives and/or time lines.

- We recommend implementing an EMSC program to any Agency that has yet to do so and are looking for an opportunity to strengthen its ties with the Agency’s various stakeholder groups.

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# Comprehensive Policy, Procedure & Protocol Manual

**Grantee:**

Imperial County EMS Agency

**Project Number:** EMS-1051

**Project Period:** 07/01/01 - 09/30/02

**Project Amount:** \$25,000.00

**EMS Administrator:**

John Pritting

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## Introduction

Under the *System Assessment Narrative* of the Imperial County EMS Plan, a need was identified to develop a comprehensive, up-to-date policy and procedures manual (Objective 1.14.1). There have been many changes and revisions to state regulations, state laws, EMS standards and practice, and ethical standards since our last revision in 1988.

## Project Description

The goal of this project was to organize a multi-disciplinary task force to develop a contemporary and comprehensive policy and procedure manual for the Imperial County Emergency Medical Services.

## Tasks/Methodology

The project began by organizing a multi-disciplinary Policy-Procedure-Protocol (PPP) Task Force to develop the manual. Representatives from the EMS Agency, local hospitals, private ambulance providers, fire departments and the local community college voiced their support and willingness to participate on the PPP Task Force. The EMS Manager served as the Project Coordinator.

New and revised policies/procedures/protocols for the Imperial County were drafted

and distributed (via email) for task force members to review and compare with other LEMSA PPPs posted on agency websites. Task force members then submitted comments. Revised PPPs were then sent out until the group reached consensus on a final draft. This process continued until a comprehensive PPP Manual was developed and approved by the EMS Medical Director for Imperial County.

## Outcome

A comprehensive and contemporary, policy, procedure and protocol manual was developed for Imperial County EMS. The rollout for the new manual will be in December 2002.

## Conclusion

The development of a comprehensive EMS policies, procedures and protocol manual will provide EMS system participants with contemporary guidelines and standards for education and training, certification, recertification, scope of practice, prehospital patient care, and with information on the authority, responsibility and an appropriate course of action to resolve EMS system issues.



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## Statewide Standards for Disaster Medical Response

### Grantee:

Mountain-Valley EMS Agency

**Project Number:** EMS-1052

**Project Period:** 07/01/01 - 09/30/02

**Project Amount:** \$75,627.00

### EMS Administrator:

Steve Andriese

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### Introduction

In cooperation with the Emergency Medical Services (EMS) Administrators Association of California, Mountain-Valley EMS Agency began a project in July 1999, funded by the California Emergency Medical Services Authority, to develop disaster medical system (DMS) standards to assist local EMS agencies (LEMSAs) in the development of local disaster medical systems. These standards will provide the basis for regulations.

### Project Description

A multi-disciplinary Steering Committee and an Advisory Group were formed from local, regional, and state representatives, as well as many DMS stakeholder groups from throughout the state. The Steering Committee identified 18 medical and health functions during the FY 99/01, which were revised to the 17 functions listed below during the second year of the project.

- (1) **Development and maintenance of medical and health disaster plans, policies, and procedures for the operational area.**
- (2) **Assessment of immediate medical needs.**
- (3) **Management of disaster medical and health resources.**

- (4) **Management of patient distribution and medical evacuations.**
- (5) **Support for hospital inpatient and emergency care.**
- (6) Support for out-of-hospital medical care
- (7) **Coordination of pre-hospital emergency services disease.**
- (8) **Support for temporary field treatment sites**
- (9) Health surveillance and epidemiological analyses of community health status.
- (10) Assurance of food safety.
- (11) Management of exposure to hazardous agents
- (12) Provision or coordination of mental health services
- (13) Provision of medical and health public information and protective action recommendations
- (14) Provision or coordination of vector control services
- (15) Assurance of drinking water safety
- (16) Assurance of the safe management of liquid, solid, and hazardous wastes.
- (17) Investigation and control of communicable diseases

The Steering Committee also identified seven functions, identified in bold type above for which local EMS agencies have primary responsibility for preparedness, response, or recovery activities. The intent of the regulations that result from this project, at a minimum, is to

promote an assurance role for LEMSAs in the development of quality DMS systems. Project advisors recognized that given the variety of ways in which EMS services are organized in California, various LEMSAs will have different operational roles related to disaster medical services.

### **Outcome**

A set of DMS standards, guidelines, and policy templates was developed. Additionally, a self-evaluation document was developed, training materials were modified and compiled, and a recommended organizational oversight body to continue to promote standardization throughout the state was submitted to the EMS Authority for consideration.

### **Conclusion**

Both the Steering Committee and Advisory Group identified the need for legislation to provide a medical and health framework for implementation of these standards by local systems. The proposed legislation would define the seventeen functions and name the Health Officer or designee as the government official having primary oversight responsibility for the development and implementation of the functions.

The Project Advisory Group unanimously recommended that the California Department of Health Services undertake a similar project to assist local public and environmental health official to establish statewide standards and guidelines. They also recommended the creation of an oversight body or bodies to maintain and update the statewide medical and health standards.

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## Statewide Evaluation of EMSC

**Grantee:**

Riverside County EMS Agency

**Project Number:** EMS-1054

**Project Period:** 07/01/01 - 09/30/02

**Project Amount:** \$109,409.00

**EMS Administrator:**

Michael Osur

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(909) 358-5029

### Introduction

Over \$2,000,000 has been provided to EMS agencies throughout California over the last 10 years by the California Emergency Medical Services Authority (EMSA) for the purpose of development and implementation of Emergency Medical Services for Children (EMSC). To date, there has been no assessment of the degree of EMSC development and implementation in these agencies, nor is there information about how well EMSC has been sustained at the end of the grant period. There is also little information about development and implementation of EMSC in agencies that have not received funding.

A statewide assessment is needed to obtain an overall picture of EMSC statewide, to identify outstanding programs for use by other agencies, and to provide information to identify future needs for the EMSC program in California.

### Project Description

The purpose of this project is to assess the development, implementation and integration of EMSC and EMSC components into EMS systems in California, providing a baseline picture of EMSC statewide. Successful programs and EMSC components will be identified for replication in other EMS systems, along with implementation strategies that lead to long-term sustainability.

### Tasks/Methodology

Riverside County EMS Agency is responsible for overall administration of the project. The first year objectives include:

1) *To secure grant funding and develop a subcontract for the EMSC evaluation.* For this objective, a subcontract was developed with the Research and Education Institute at Harbor-UCLA Medical Center. The Co-Consultants for the project are Deborah P. Henderson, RN, PhD, and James S. Seidel, MD, PhD.

2) *To develop a process for evaluating EMSC using both qualitative and quantitative methods.* The EMSC Technical Advisory Board agreed to become the Project Advisory Board, providing guidance and recommendations for the project. Currently available documents related to EMSC assessment from other sources were reviewed in the first months of the grant, along with a variety of references related to quantitative and qualitative evaluation. A site survey plan for EMSC assessment was developed, and a survey instrument was drafted. The site survey plan and survey instrument were reviewed by the Technical Advisory Board, by the EMSC Coordinator group, and by the Pediatric Liaison Nurses of Los Angeles County. Comments and recommendations were included in the finalization of the assessment document and site survey plan.

The first site visit was to Merced EMS Agency, to obtain information about the EMSC project; this information was used to assist in development of the assessment document that was circulated to the Technical Advisory Committee and others for review. The assessment document was then piloted in two agencies: Riverside EMS Agency and North Coast EMS Agency. Feedback was requested from these two agencies regarding the assessment document and the site survey process. Some changes were made to the site survey plan; most importantly, the decision was made not to visit hospitals during the site visits because of logistical difficulties and the potential for misinterpretation of the purpose of the hospital visits and/or the role of the co-consultants.

Following the pilot in two agencies, the survey document was finalized and submitted to the Technical Advisory Committee for review. Plans for the project were also discussed with the EMSC Coordinators and the Pediatric Liaison Nurses of Los Angeles County for comment.

3) *To document the extent of development and implementation of EMSC in 5 EMS agencies in the first year.* The survey process and documents were developed after an initial visit to Merced County EMS Agency, and were piloted in two agencies: Riverside County EMS Agency and North Coast EMS Agency. Although San Mateo EMS Agency was originally scheduled for assessment, this proved to be impossible, and this agency will be surveyed in the second year. Ventura EMS Agency was surveyed, and an appointment was made for assessment of the Los Angeles County EMS Agency.

A database was developed for entry of the information from the surveys, and data was entered for the agencies visited. Data will be

compiled and analyzed at the end of the second year of the project.

## **Outcome**

An outline of the EMSC survey process, and site survey documents were developed for the project. In addition, an outline for interviews, and summaries of EMSC funding by agency were completed. Data from visits to the EMS agencies visited in the first year has been compiled, and has been entered into a database to be combined with additional data from site visits in the second year.

## **Conclusion**

The assessment process is now ready for use in the remaining EMS agencies to be assessed in the second year. Information obtained from the site visits will ultimately provide a picture of EMSC in the State of California for use in planning for further development and implementation of EMSC statewide.

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## Emergency Medical Services for Children (EMSC)

**Grantee:**

San Diego County EMS Agency

**Project Number:** EMS-1055

**Project Period:** 07/01/01 - 12/31/02

**Project Amount:** \$131,747.00

**EMS Administrator:**

Gwen Jones

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San Diego, CA 92120

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### Introduction

Through evolution of time many components of the Emergency Medical Services (EMS) for Children (EMS-C) program had been incorporated into the existing San Diego County EMS system. But, a preliminary assessment found several large components of the EMS-C system fragmented and without structure, communication or coordination.

### Project Description

The goal of the County of San Diego was to implement an EMS-C program to improve the emergency medical services and healthcare resources available to the children of the County. Currently in San Diego County there are 22 hospitals with Emergency Departments, which include eight Base Hospitals and six Trauma Centers (5 Adult, 1 Pediatric). There are 27 Paramedic Agencies and 20 Emergency Medical Technician (Basic) Agencies employing 1000 Paramedics and 3000 EMT's. Due to the size of the EMS system, and multitude of involvement and input, the focus of the first year of this program was to develop the administrative backbone for this program, while incorporating specific interventions that will improve the quality of emergency medical care, provided to the pediatric community. The major first year objectives established a structure for long-term implementation and maintenance of the EMS-C

program. These objectives included evaluating essential prehospital components, interfacility transfers, initiating the development of emergency department guidelines for the care of children and establishing a process for cross-border interfacility transfers and data collection.

### Tasks/Methodology

The County of San Diego established the EMS-C Program administrative framework by designating an EMS-C Coordinator with support services for clerical, epidemiological and international communications. An EMS-C Advisory/ Steering Committee was established by policy and routinely met to evaluate various aspects of the EMS and community pediatric emergency healthcare preparedness and prevention. The EMS-C Coordinator facilitated meetings with representatives of facilities, agencies, community groups and subcommittees on a variety of project topics. Though the County of San Diego's EMS system had been evolving for decades, the essentials of prehospital equipment, supplies, and education were reviewed and revised to meet both national standards and local advice. More complex projects included Safe Transport Guidelines, Emergency Department Guidelines for Pediatrics, Emergency Guidelines for schools, Emergency Medical Information for CSHCN, and a bi-national cross-border process and data collection system for inter-facility transfers between Mexico

and the United States. These projects were primarily accomplished through stakeholder participation and consensus gathering techniques. Some projects such as the Emergency Guidelines for San Diego schools were outside of the grant objectives, but were pursued as a recognized community need in collaboration with the County of San Diego's Office of Education. The school guidelines, based on the Ohio EMSC project, are serving as the backbone for development of state guidelines. Due to the complexity and highly political nature of these projects, most are expected to be completed during the 2<sup>nd</sup> Year Grant period.

## **Outcome**

Several of the EMS-C projects undertaken in San Diego will result in a final published project. These projects will receive final approval in 2003. Some projects are completed and waiting final approval or funding prior to implementation, including Safe Transport Guidelines, Emergency Guidelines for Schools, and the Emergency Medical Information for CSHCN system.

Three primary surveys were completed during the summer of 2002 and are awaiting final approval before publishing. These surveys included Emergency Department Nurse Manager Interviews, Emergency Department Survey, Prehospital Educational Needs Assessment Survey, and the Continuing Education Providers Survey. These published studies will provide background for future direction in accomplishing several projects, while lending knowledge to the on-going EMS processes.

## **Conclusion**

The EMS-C Implementation project has opened many doors that contribute directly to improving traditional EMS system components and to widening the breath of the EMS community's involvement with public institutions and healthcare providers who are traditionally outside of the EMS realm. The introduction of the PEPP course and other educational needs will result in changes to CE Provider offerings for many years into the future.

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## High School CPR

**Grantee:**

San Mateo County EMS Agency

**Project Number:** EMS-1056

**Project Period:** 07/01/01 - 06/30/03

**Project Amount:** \$45,000.00

**EMS Administrator:**

Barbara Pletz

225 37<sup>th</sup> Avenue

San Mateo, CA 94403

(650) 573-2564

**Final Report and Abstract Report due  
August 31, 2003.**

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## Implementation of Vulnerable Population

**Grantee:**

Santa Barbara County EMS Agency

**Project Number:** EMS-1057

**Project Period:** 10/01/01-12/31/02

**Project Amount:** \$64,094.00

**EMS Administrator:**

Nancy LaPolla

300 North San Antonio Rd.

Santa Barbara, CA 93110

(805) 681-5274

### Introduction

Santa Barbara County has implemented an organized response system to meet the special needs of vulnerable populations who are unable to act independently and safely during an emergency or disaster. This report represents work completed from October 1, 2001 to December 31, 2002.

### Project Description

The Purpose of this grant is to implement the Emergency and Disaster Plan for Vulnerable Populations. The term “vulnerable populations” includes, but is not limited to: people with short term illnesses or chronic disabilities; frail seniors and other adults and children with disabling acute or chronic illnesses/conditions; people with disabling chronic or acute mental illness.

The written Emergency and Disaster Plan for Vulnerable Populations of Santa Barbara County and its implementation is the culmination of three years of work by the Emergency and Disaster Planning for Vulnerable Populations Task Force and project staff. The plan is divided into three sections: pre-event or preparedness, response to the incident, and recovery from the incident.

Each section delineates the responsibilities of the key players involved in

disaster preparedness and response: 1) the vulnerable individual; 2) care providers; 3) community based organizations; 4) public agencies. Many references are made to the Shelter Medical Group Report and the appendix contains excerpts from the subsequent Local Emergency Preparedness Planning Tool Kit for local use.

### Grant Objectives

1. To complete all contractual obligations with the State of California Emergency Medical Services Authority.
2. To contract with a part-time project manager.
3. To market the Emergency and Disaster plan to the Santa Barbara County Board of Supervisors and to the department heads.
4. To train county staff, emergency response agencies, community providers, community members, and vulnerable populations and their families about the plan.
5. To implement the Emergency and Disaster Plan for Vulnerable Populations.
6. To determine the feasibility of developing a disaster registry in a designated portion of the County.



## Tasks/Methodology

Wrote Letter to the Board of Supervisors to accept the new contract with EMSA; new project coordinator completed quarterly reports and invoices, and requested and received funding to extend the project to December 31, 2002.

Project Coordinator was contracted for the duration of the project on December 10, 2001.

Scheduled and made separate presentations to county department heads and the Board of Supervisors about the plan. Department heads and county supervisors were also members of the Task Force. Received support of all targeted personnel.

Educated county staff and emergency responders through Task Force meetings and presentations, and through participation in the countywide disaster drills into which evacuation scenarios of vulnerable populations were incorporated. Subcontracted with the Adult and Aging Network and Long Term Care Ombudsmen Services to provide outreach and education to vulnerable individuals and service providers. Drafted educational module for presentations to vulnerable individuals and service providers.

Worked with Geographical Information System (GIS) technician to update maps as more members of the Vulnerable Population were identified and information changed. Located skilled nursing and board and care facilities in the county on the GIS maps using data received from Long Term Care Ombudsman Services (facility name, address, contact person, bed capacity, etc.) Focused on drafting and implementing MOUs between the County of Santa Barbara and community organizations to provide

transportation and shelter for vulnerable populations during an emergency or disaster.

We identified a need to develop a voluntary disaster registry in order to locate medically fragile individuals living at home without formal assistance. Members reviewed information from San Francisco's Disaster Registry and invited Ron Lopez to our Emergency Medical Services annual meeting to speak. Unfortunately, there are too many variables in trying to set up a disaster registry for a short-term funded project such as this was (confidentiality of information of those in the registry, resources needed to maintain the data, and inability to find an agency willing to take the lead on the issue). The disaster registry has been put on hold until a future date when there are resources available to establish and maintain it.

## Outcome

Completed written Emergency & Disaster Plan for Vulnerable Populations and GIS maps and tables.

Completed general emergency and disaster MOU between the County of Santa Barbara and American Red Cross.

Completed three transportation MOUs (Easy lift, AMR, SMOOTH, Inc.).

Completed one sheltering MOU with Rehabilitation Institute.

Created and implemented vulnerable populations disaster scenario.

Developed educational module and materials for educating individuals, care providers, and community organizations about the plan and disaster preparedness.

Trained staff of sixty-six—half of all county facilities— Residential Care Facilities for the Elderly (RCFEs) about the vulnerable populations disaster plan and disaster preparedness.

Made PowerPoint Presentations to the County Board of Supervisors.

## **Conclusion**

The impact of this project has been positive not only for the EMS agency, but also for the general emergency and response system in Santa Barbara County:

- 1) Agencies have a clearer view of their individual, mutual and systemic responsibilities in an emergency or disaster, through definitions provided by the Vulnerable Populations Emergency and Disaster Plan and the various memoranda of understanding. Dialogue has been opened between departments that will facilitate future revisions and improvements to countywide response systems.
- 2) We now have a general agreement that we have never had before that defines roles, responsibilities, and resources for disaster response.
- 3) Dialogue and outreach to community agencies and vulnerable individuals has been made. The groundwork has been laid for any future disaster preparedness education and follow up to the activities of the last three years.
- 4) County staff, administration, and residents are aware of the importance of being prepared for emergency situations

in ways in which they were previously (having a disaster plan, contents of plan, mutual agreements, etc.)

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## Emergency Medical Dispatch

**Grantee:**

Sierra-Sacramento Valley EMS Agency

**Project Number:** EMS-1058

**Project Period:** 07/01/01-06/30/03

**Project Amount:** \$90,905.00

**EMS Administrator:**

Leonard R. Inch

5995 Pacific Street

Rocklin, CA 95677

(916) 625-1701

**Final Report and Abstract Report due  
August 31, 2003.**

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## BLS Airway Management

**Grantee:**

Sierra-Sacramento Valley EMS Agency

**Project Number:** EMS-1059

**Project Period:** 07/01/01-06/03/02

**Project Amount:** \$34,018.00

**EMS Administrator:**

Leonard R. Inch

5995 Pacific Street

Rocklin, CA 95677

(916) 625-1701

### Introduction

Basic airway management is an often-overlooked skill in all areas of health care. The pediatric airway study from LA and Orange counties reaffirmed the importance of airway management in the pediatric population. Specifically, the skill of bag-valve mask ventilation takes training and practice on a frequent basis to maintain competency.

### Project Description

The main objectives for this grant were to conduct BLS airway train the trainer sessions for EMS educators throughout the S-SV region and then provide equipment for those trainers to conduct additional classes. By reaching the EMS educators, the information will be spread not only in the grant year, but also for as long as these educators teach.

### Tasks/Methodology

The Nurse Educators from the pediatric airway study in LA and Orange counties were retained as project consultants to conduct the train the trainer classes. These educators recommended specific equipment they determined to be critical to ensuring a worthwhile learning experience. Five sets of the equipment were purchased. BLS and ALS providers, EMT-I and EMT-P training programs were all

encouraged to send trainers to one of the 16 scheduled classes. 15 BLS airway train the trainer classes were conducted throughout S-SV between March and June 2002. Each class was approximately 3 ½ hours long. The consultants traveled to the region and trained for 2 days, 2 classes per day. 5 base hospitals were identified based on geographical location and willingness to check out the equipment to prehospital providers. These hospitals have agreed to sign an MOU for them to store, maintain and check out the BLS airway equipment.

### Outcome

114 students attended one of the 15 BLS airway train the trainer classes. The students were asked to fill out a student information form. The students self reported that they would be giving this training to up to 4840 students over the next year. 29 of the 67 BLS Fire Departments (43%) and 10 of the 11 ALS providers (91%) in S-SV had an educator attend the training. Demand for use of the equipment has been high.

### Conclusion

The actions taken during the first few minutes of an emergency are critical to victim survival. An unresponsive patient with severe respiratory distress or apnea requires immediate attention. By utilizing a train the trainer program we have ensured that the service providers will

have trained instructors and the equipment available to maintain this critical skill. The end result will be to save lives of patients who might not have survived. We see no other project benefiting the patients and improving outcomes in our region more than prehospital airway management.

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## EMS Evaluation & Planning

**Grantee:**

Sierra-Sacramento Valley EMS Agency

**Project Number:** EMS-1060

**Project Period:** 10/01/01-04/30/03

**Project Amount:** \$211,480.00

**EMS Administrator:**

Leonard R. Inch

5995 Pacific Street

Rocklin, CA 95677

(916) 625-1701

### Introduction

At the inception of this project, California did not have a coordinated statewide EMS system plan or a process for evaluating the effectiveness of local EMS systems. There are 32 local EMS agencies within the State of California with many diverse problems and multi-cultural responsibilities. Over 140 individuals on six different committees and several ancillary task forces worked to implement the 66 Vision Project objectives and 90 National Highway Traffic Safety Administration (NHTSA) Objectives.

### Project Description

Create a Statewide EMS Plan to coordinate, evaluate, and improve the delivery of emergency medical care in California. This plan will be based on the NHTSA recommendations, the Vision Project Objectives, and a systematic annual review process that will be used to assess the effectiveness of local EMS systems and agencies.

### Tasks/Methodology

In the third year, activity continued in each of the committees to implement their objectives. The project manager continued to attend all meetings to provide facilitation and coordination. Staff at the EMS Authority began

the development of the State EMS Plan, incorporating those objectives from the Vision and NHTSA assessment the committees determined to be long-term. The revision process for the EMS System Standards and Guidelines was also separated into two phases, after input from the Vision Leadership Team (VLT). Committees finalized their work and future preparation plans for the final EMS Vision conference that occurred on December 5<sup>th</sup> and 6<sup>th</sup>, 2002. The grant was extended 7 months to allow for development of the State EMS Plan, and the completion of the first phase of the revision of EMSA #101 & #103.

A full report of the project activities is under development and will be presented to the EMS Authority upon completion.

The following documents were finalized in the third year of the project:

#### From the Vision Office

Draft "State EMS Plan"

Anticipated to be finalized and adopted by the EMS Commission, 12/03.

#### From the Vision Committees

Draft "EMS White Paper on Funding"

Embodies history of EMS funding and strategies for additional funding.

“Matrix of Stakeholders”

EMS Authority utilizes in forming task forces and distributing materials.

“Matrix of Responsibility”

Clarifies role of LEMSAs and Provider agencies for different levels of service. Draft

“Decision Making Model” (EMDAC SOP)

Process for use by EMDAC SOP Committee.

Brochures: “Advanced Life Support Careers in EMS”, “Basic Life Support Careers in EMS”, “Careers in EMS”

For use by LEMSAs and EMS Authority to assist in recruitment of individuals into prehospital careers.

“Definitions from Division 2.5 of Health and Safety Code and Division 9, Title 22”

Central point for definitions of terms in these document, provides consistency.

“EMSA #112” revision

Explains requirements, purpose, & process for optional scope or trial studies for EMS Personnel.

“EMS Awards Brochure”

Outlines award program for prehospital personnel.

“State EMS Data Set”

Establishes a State EMS Data Set to provide standardization.

“State EMS Data Collection and Reporting Guidelines”

Instructions for LEMSAs to report data to the EMS Authority.

“CEMSIS State Data System”

Designed by EMS Authority to house and analyze data collected by LEMSAs.

“State EMS System Evaluation Guidelines (EMS Quality Indicators)

Q.I. Indicators for EMS.

“State EMS Evaluation Improvement Guidelines”

Outlines comprehensive statewide Q.I. program.

“Local EMS Agency Assessment Tool”

Provides a voluntary assessment tool for local EMS Agencies to improve level of service provided and relations with EMS community.

“Universal Access to 9-1-1 Position Paper”

Identifies 9-1-1 has been established as universal emergency number in CA.

“Alternate Access to 9-1-1 Position Paper”

Provides recommendations and identifies problems for systems seeking to implement alternate access numbers.

“Access Management”

Provides recommendations for systems to develop access management programs.

“Emergency Medical Dispatch Guidelines”

Provides a voluntary, statewide EMD standard.

“Prevention Registry”

On EMSA website: Section on Employee Wellness, Data collection tools for prevention and public education, Instructions on starting an injury prevention program, funding and educational opportunities, and a Registry to provide collaboration and share successful programs.

“Prevention and Public Education Resolution”

Memorializes the commitment to prevention leadership in CA.

“Recommended Guidelines for Disciplinary Orders and Conditions of Probation” (Draft for EMT-I and II)

A consistent and equitable discipline in cases dealing with violation of the Health and Safety Code, Div. 2.5, section 1798.200.

“Paramedic Interfacility Transport Program Guidelines”

Provides LEMSAs with guidelines to use in IFT.

## **Conclusion**

The most significant achievement of the Vision Project was the establishment of a collaborative approach to system improvement by EMS constituents. Committees completed many of the Vision and NHTSA objectives, and the long-term objectives have been incorporated into the State EMS Plan. The Plan is anticipated to be approved at the EMS Commission meeting in December, 2003. It will continue the process of working toward statewide coordination and standardization through a collaborative approach.